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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/977,439	10/15/2001	Shigeyuki Baba	7217/65921	3682

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EXAMINER	
NGUYEN, PHU K	

ART UNIT	PAPER NUMBER
2628	

DATE MAILED: 09/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/977,439	BABA ET AL.	
	Examiner	Art Unit	
	Phu K. Nguyen	2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 June 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11,21-31,41 and 42* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11,21-31,41 and 42* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

PHU K. NGUYEN
PRIMARY EXAMINER
GROUP 2300

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-11, 21-31, and 41-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over ONO (6,233,003) in view of UOMORI et al. (6,353,457).

As per claim 1, Ono teaches the claimed "imaging device for forming a parallax image string" (Ono, image device 16, figure 10) including a plurality of image data containing parallax information by capturing images of an object, comprising: "a time spatial parameter indicative of one of time and spatial information for use in capturing images of an object and said forming of said parallax image string" (Ono, light shutter, position information, ...column 11, line 58 to column 12, line 33); and "a controller for

enabling the capture of the images of said object" (Ono, the general control unit 8; figure 9; column 11, lines 40-46). It is noted that Ono does not teach "a parameter interface for receiving" a time spatial parameter indicative of one of time and spatial information for use in capturing images of an object and said forming of said parallax image string as claimed. However, such "parameter interface for receiving set-up parameters" is well known in the art (UOMORI, Camara Parameter Determining section 6, figure 6; column 7, line 3 to column 8, line 66). It would have been obvious to a person of ordinary skill in the art at the time the invention was made, in view of the teaching of UOMORI, to configure Ono's system as claimed because the presetting of the time and spatial information on the image recording device to match the display device's characteristics improves the quality of the parallax images of the object on the display device (Uomori, column 6, lines 45-67).

Claim 2 adds into claim 1 "a storage device for storing time spatial parameters interconnected via a network, wherein said controller reads out a first time spatial parameter required at the time of imaging from said various time spatial parameters stored in said storage device" which Ono teaches in figure 10.

Claim 3 adds into claim 2 "said controller causes said parallax image string of captured images and said first time spatial parameter corresponding thereto to be supplied to said storage device and stored therein" which Ono teaches in column 12, lines 3-10.

Claim 4 adds into claim 3 "said parallax image string and said time spatial parameter stored in said storage device under control of said controller are supplied to a holographic stereogram producing device for producing a holographic stereogram, and are used as a second time spatial parameter required for producing the holographic stereogram" which Ono teaches in its output image because the captured parallax image information can be used to form "a holographic stereogram" for viewing.

Claim 5 adds into claim 1 "said controller reads out a first time spatial parameter required at the time of image capturing from various time spatial parameters recorded in a recording medium loaded in said imaging device" " which Ono teaches in figure 10.

Claim 6 adds into claim 5 "said controller controls recording of a parallax image string of captured images and the first time spatial parameter corresponding thereto on said recording medium" which Ono teaches in column 12, lines 3-10.

Claim 7 adds into claim 6 "said parallax image string and said first time spatial parameter corresponding thereto recorded on said recording medium by said controller are supplied to a holographic stereogram producing device for producing a holographic

stereogram so as to be used as a second time spatial parameter required at a time of producing said holographic stereogram" which Ono teaches in its output image because the captured parallax image information can be used to form "a holographic stereogram" for viewing.

Claim 8 adds into claim 1 "said time spatial parameter comprises pieces of information indicating imaging conditions" which Ono teaches in column 15, line 35 to column 16, line 17; or Uomori, column 6, lines 37-50.

Claim 9 adds into claim 8 "said time spatial parameter comprises an imaging time, an imaging angle, an imaging distance indicative of a positional relation between an image capturing point and the object, and one of a translation motion distance and an imaging pitch" which Ono teaches in column 3, line 52 to column 4, line 30; or Uomori, column 8, lines 23-56.

Claim 10 adds into claim 1 "said parallax image string comprises one of motion picture image data and a plurality of 2-dimensional still picture image data" which Ono teaches in column 3, lines 26-37; or Uomori, column 17, lines 23-27 (TV apparatus).

As per claim 21, Ono teaches the claimed "image producing device for producing a parallax image string including a plurality of computer graphics data containing parallax information" (Ono, image device 16, figure 10) including a plurality of image

data containing parallax information by capturing images of an object, comprising: "a time spatial parameter indicative of one of time and spatial information for use in capturing images of an object and said forming of said parallax image string" (Ono, light shutter, position information, ...column 11, line 58 to column 12, line 33); and "a controller for enabling the capture of the images of said object" (Ono, the general control unit 8; figure 9; column 11, lines 40-46). It is noted that Ono does not teach "a parameter interface for receiving" a time spatial parameter indicative of one of time and spatial information for use in capturing images of an object and said forming of said parallax image string as claimed. However, such "parameter interface for receiving set-up parameters" is well known in the art (UOMORI, Camara Parameter Determining section 6, figure 6; column 7, line 3 to column 8, line 66). It would have been obvious to a person of ordinary skill in the art at the time the invention was made, in view of the teaching of UOMORI, to configure Ono's system as claimed because the presetting of the time and spatial information on the image recording device to match the display device's characteristics improves the quality of the parallax images of the object on the display device (Uomori, column 6, lines 45-67).

Claim 22 adds into claim 21 "a storage device for storing various time spatial parameters, interconnected therewith via a network, wherein said controller reads out a first time spatial parameter from said various time spatial parameters stored in said

storage device, said first time spatial parameter being required at the time of producing an image" which Ono teaches in figure 10.

Claim 23 adds into claim 22 "said controller supplies the parallax image string formed and the first time spatial parameter corresponding thereto to said storage device to be stored therein" which Ono teaches in column 12, lines 3-10.

Claim 24 adds into claim 23 "said parallax image string and said first time spatial parameter corresponding thereto, having been supplied and stored in said storage device under control of said controller, are supplied to a holographic stereogram producing device for producing a holographic stereogram in which said first time spatial parameter supplied is used as a second time spatial parameter required at the time of producing said holographic stereogram" which Ono teaches in its output images because the captured parallax image information can be used to form "a holographic stereogram" for viewing.

Claim 25 adds into claim 21 "said controller reads out a first time spatial parameter required at the time of producing the image from said various time spatial parameters stored in a recording medium loaded in said image producing device" " which Ono teaches in figure 10.

Claim 26 adds into claim 25 "said controller controls recording of a parallax image string of captured images and the first time spatial parameter corresponding thereto on said recording medium" which Ono teaches in column 12, lines 3-10.

Claim 27 adds into claim 26 "said parallax image string and said time spatial parameter corresponding thereto recorded on said recording medium in association therebetween are supplied under control of said controller to a holographic stereogram producing device for producing a holographic stereogram in which said first time spatial parameter is used as a second time spatial parameter required at the time of producing said holographic stereogram" which Ono teaches in its output images because the captured parallax image information can be used to form "a holographic stereogram" for viewing.

Claim 28 adds into claim 21 "said time spatial parameter comprises pieces of information indicative of imaging conditions of said virtual imaging device" which Ono teaches in column 15, line 35 to column 16, line 17; or Uomori, column 6, lines 37-50.

Claim 29 adds into claim 28 "said time spatial parameter comprises an imaging time, an imaging angle, an imaging distance indicative of a positional relation between an image capturing point and the object, and one of a translation motion distance and

an imaging pitch" which Ono teaches in column 3, line 52 to column 4, line 30; or Uomori, column 8, lines 23-56.

Claim 30 adds into claim 21 "said parallax image string comprises one of motion picture image data and a plurality of 2-dimensional still picture image data" which Ono teaches in column 3, lines 26-37; or Uomori, column 17, lines 23-27 (TV apparatus).

As per claim 41, Ono teaches the claimed "image producing device for producing another parallax image string by executing a synthesizing processing on a parallax image string" (Ono, image device 16, figure 10) including a plurality of image data containing parallax information by capturing images of an object, comprising: "a time spatial parameter indicative of one of time and spatial information for use in capturing images of an object and said forming of said parallax image string" (Ono, light shutter, position information, ...column 11, line 58 to column 12, line 33); and "a controller for enabling the capture of the images of said object" (Ono, the general control unit 8; figure 9; column 11, lines 40-46). It is noted that Ono does not teach "a parameter interface for receiving" a time spatial parameter indicative of one of time and spatial information for use in capturing images of an object and said forming of said parallax image string as claimed. However, such "parameter interface for receiving set-up parameters" is well known in the art (UOMORI, Camara Parameter Determining section 6, figure 6; column 7, line 3 to column 8, line 66). It would have been obvious to a person of ordinary skill

in the art at the time the invention was made, in view of the teaching of UOMORI, to configure Ono's system as claimed because the presetting of the time and spatial information on the image recording device to match the display device's characteristics improves the quality of the parallax images of the object on the display device (Uomori, column 6, lines 45-67).

Claim 42 claims a method based on the device of claim 41, therefore, it is rejected under the same reason.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phu K. Nguyen whose telephone number is (571) 272 7645. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi can be reached on (571) 272 7664. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Phu K. Nguyen
July 12, 2006

PHU K. NGUYEN
PRIMARY EXAMINER
GROUP 2300